

# Comparisons of Job Characteristics

**Focus Occupation:** [Civil Engineering Technicians \(17-3022\)](#)

**Associated Occupation:** [Supervisors of Construction and Extraction Workers \(47-1011\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 66

**Focus Occupation:** Civil Engineering Technicians (17-3022)

**Associated Occupation:** Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Building and Construction	4.0	16.9	15.1	<	Expanded education and/or training may be required
Mechanical	6.8	13.9	4.5	<<	Extensive education and/or training may be required
Administration and Management	8.4	12.8	8.2	<<	Extensive education and/or training may be required
Mathematics	9.2	12.8	15.0	>	Current knowledge level is likely sufficient
Design	5.2	10.9	14.1	>>	Current knowledge level is likely more than sufficient
Engineering and Technology	5.7	10.6	15.6	>>	Current knowledge level is likely more than sufficient
Public Safety and Security	6.9	10.2	10.6	0	Current knowledge level may be sufficient
Personnel and Human Resources	5.6	8.6	3.2	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 75

**Focus Occupation:** Civil Engineering Technicians (17-3022)

**Associated Occupation:** Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Coordination	9.1	12.2	8.2	<<	Extensive development of skills in this area may be required
Management of Personnel Resources	6.9	11.6	6.9	<<	Extensive development of skills in this area may be required

Time Management	8.9	11.2	8.6	<<	Extensive development of skills in this area may be required
Persuasion	7.4	9.6	6.6	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.9	1.3	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	5.6	4.3	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Abilities

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	13.4	12.8	0	Current ability level may be sufficient
Oral Expression	12.4	13.3	12.2	0	Current ability level may be sufficient
Problem Sensitivity	11.1	12.1	10.8	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	11.2	11.4	0	Current ability level may be sufficient
Near Vision	11.1	11.0	12.6	>	Current ability level is likely sufficient
Written Comprehension	11.0	10.7	11.4	0	Current ability level may be sufficient
Written Expression	9.8	10.6	11.4	0	Current ability level may be sufficient
Inductive Reasoning	10.2	10.4	9.9	0	Current ability level may be sufficient
Visualization	7.5	9.8	11.4	>	Current ability level is likely sufficient
Number Facility	6.3	8.2	9.2	>	Current ability level is likely sufficient
Time Sharing	6.6	7.9	6.9	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Civil Engineering Technicians (17-3022)

Associated Occupation: Supervisors of Construction and Extraction Workers (47-1011)

Work Activities	Exclusivity of Activity
Inspect project operations, or site to determine specification compliance	72
Prepare safety reports	60
Read blueprints	10
Read technical drawings	7
Understand construction specifications	53

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 67

**Focus Occupation: Civil Engineering Technicians (17-3022)**

**Associated Occupation: Supervisors of Construction and Extraction Workers (47-1011)**

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Earth moving machinery	11
Forming tools	2
Humidity and moisture measuring instruments	15
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Masonry and concrete tools	22
Measuring and layout tools	3
Mechanical instruments	14
Meteorological instruments	16
Personal communication devices	2
Safety apparel	4
Temperature and heat measuring instruments	6
Vision protection and accessories	3

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.